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ClimaEast

Support to Climate Change Mitigation and Adaptation in Russia and ENP East countries

Implementing the Paris Agreement: Belarus NDC challenges from MRV to sectoral actions. The case of large emitters and land use/forestry and bioenergy

European Union and Member State legislation and steps for the implementation of Paris Agreement

Zsolt Lengyel, Team Leader & Key Expert

6-7 April 2017, Minsk

Content of presentation

- 2020, 2030 and 2050: windows for the future: from long-term vision to action
- Conclusions
- Discussion

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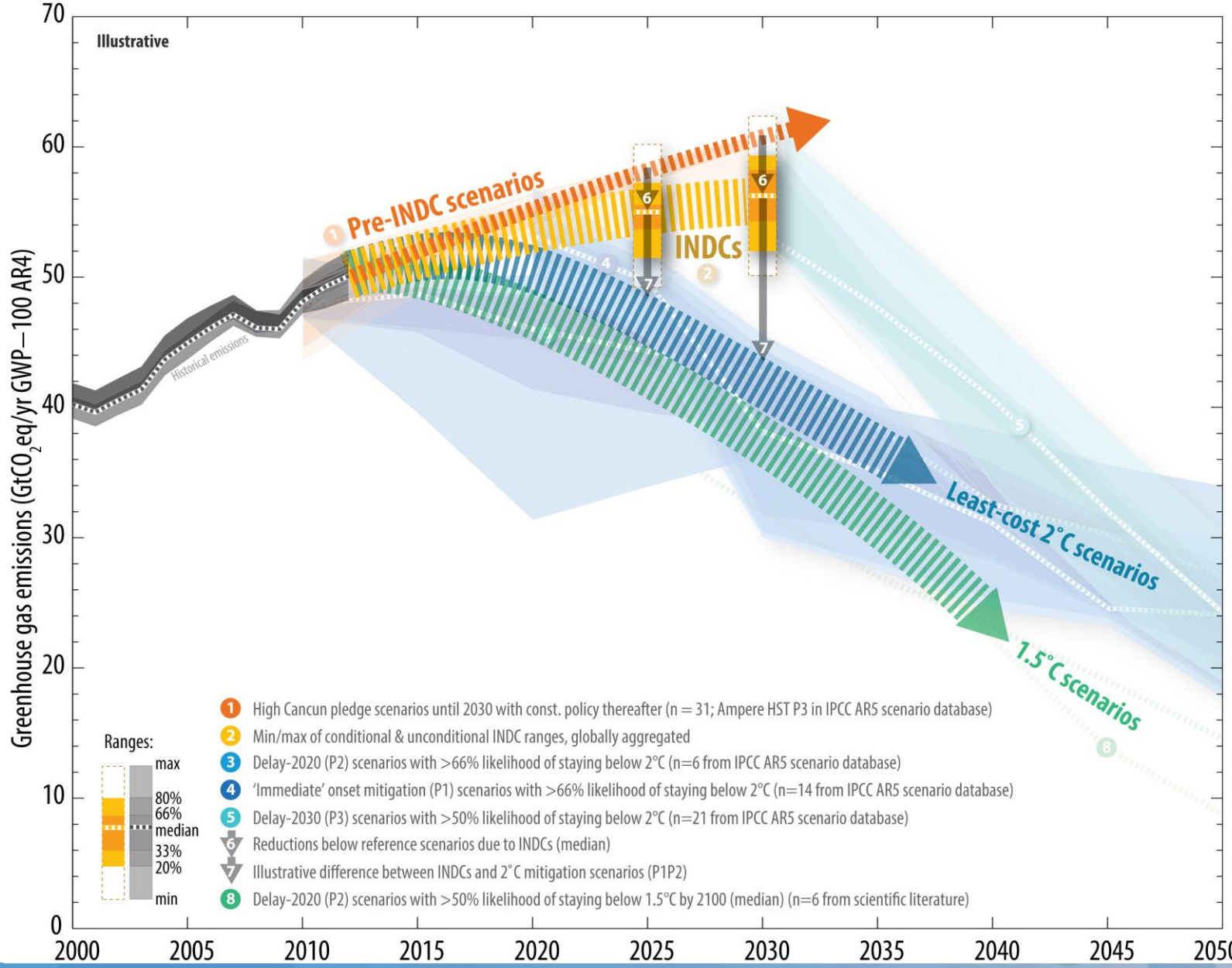

Figure 2 "Comparison of global emission levels in 2025 and 2030 resulting from the implementation of the INDCs and under other scenarios"; Updated synthesis report on the aggregate effect of INDCs - published 2 May 2016

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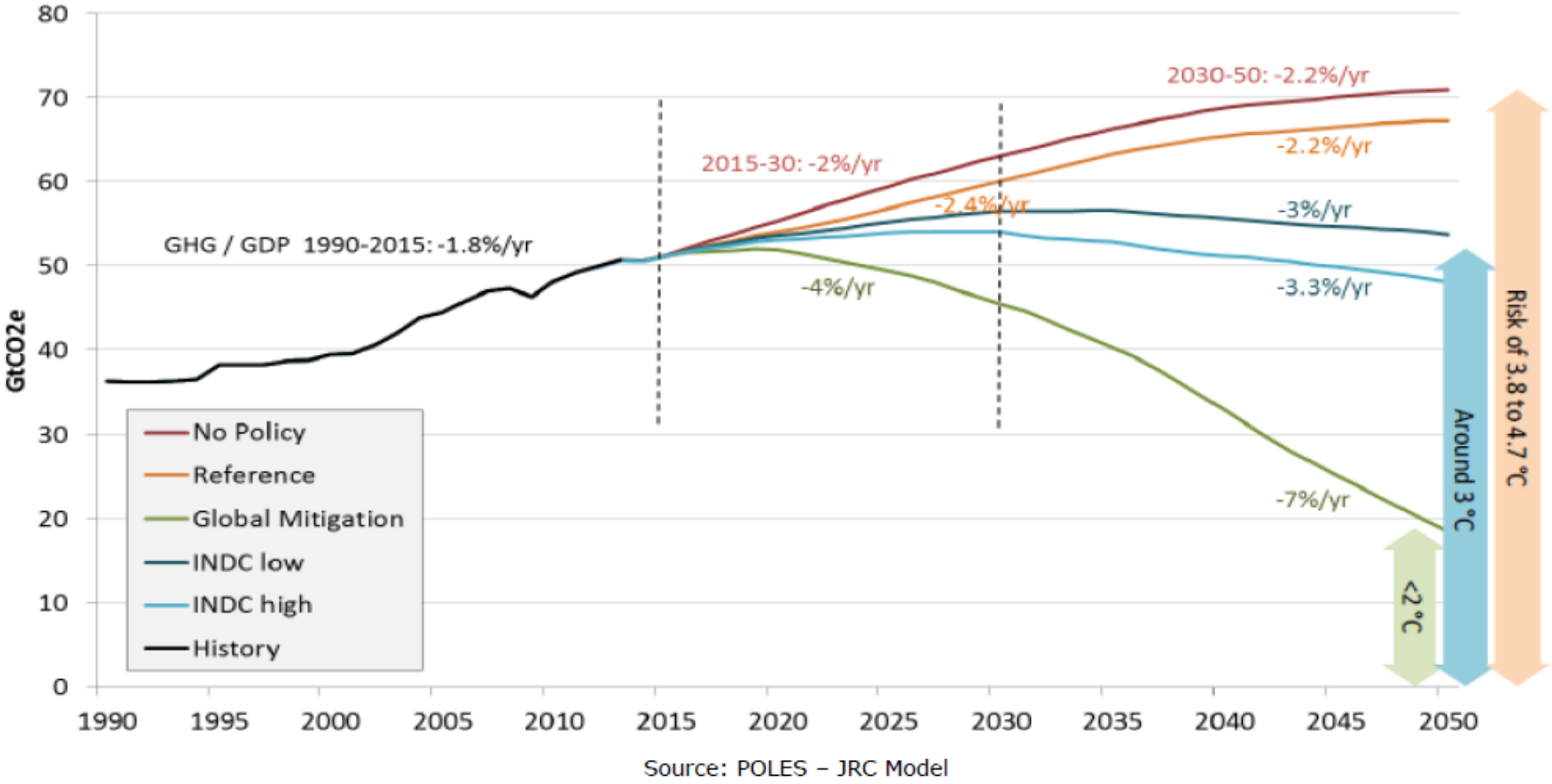
World emissions (Gt C02e, total excluding sinks) and percent change in emission intensity per unit of GDP



Source: POLES – JRC Model

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Cost-efficient EU pathway towards 2050

80% domestic GHG reduction in 2050 is feasible

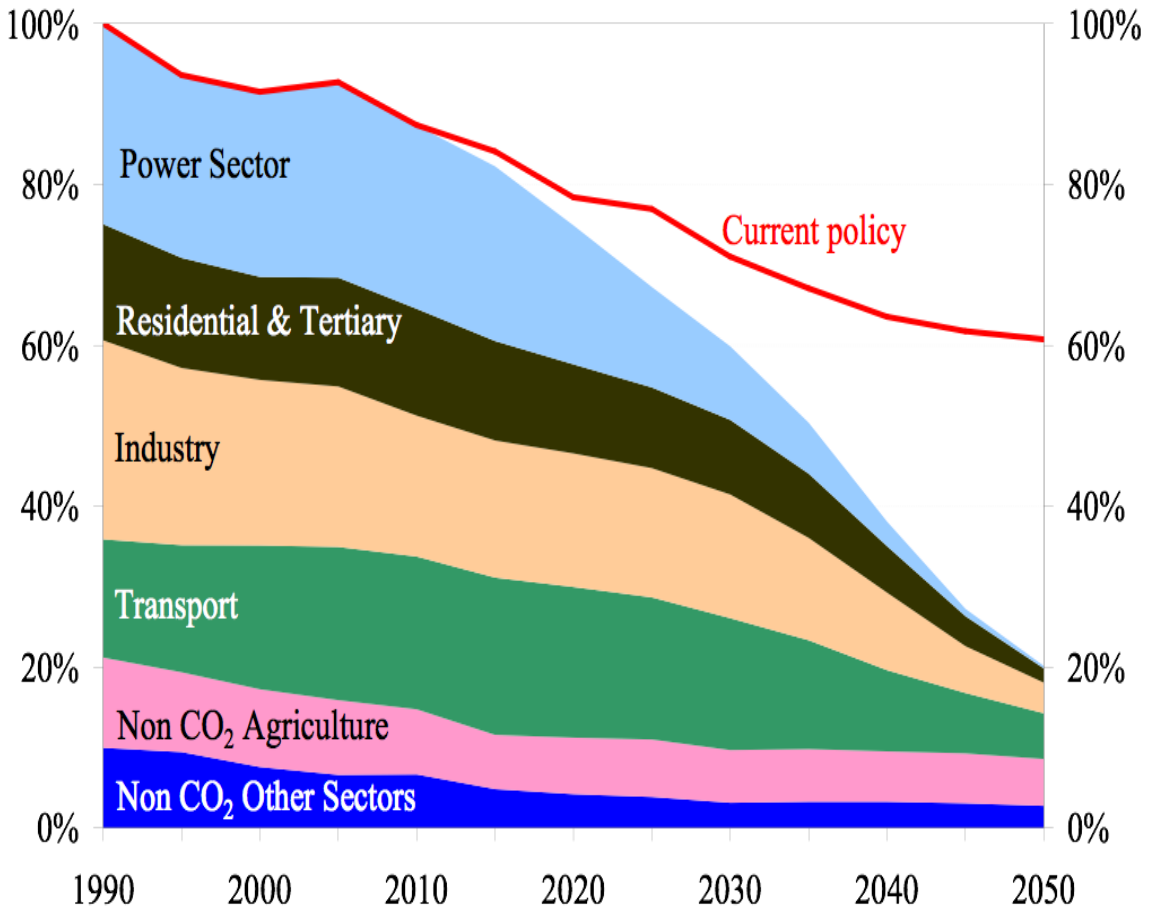
- with currently available technologies,
- with behavioural change only induced through prices
- If all economic sectors contribute (energy: 85%)

Efficient pathway:

-25% in 2020

-40% in 2030

-60% in 2040



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EU 2030 Package

- EU 2030 targets already reflect action needed to stay below 2 degrees Celsius
- proposed in advance of the Paris Agreement as EU preparation
- continuation of a pathway set out in 2009 Climate and Energy Package
- sets out interim steps for achieving the EU climate and energy objective to reduce GHG emissions by **80-95% below 1990 levels by 2050** (in the context of necessary reductions of developed countries as a group)
- 2018 global stocktake will assess need for further global action, based on past performance and new science (VI IPCC report)

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2030 policy framework for climate and energy (2014)

- Communication: A policy framework for climate and energy in the period from 2020 to 2030 (Jan.2014)
- Proposed target – **40% reduction of EU domestic GHG emissions compared to 1990 levels by 2030**
  - *EU ETS target -43% compared to 2005 levels*
  - *Non-ETS target -30% below 2005 levels*
- An objective of increasing the share of RE to **at least 27%** of EU energy consumption by 2030

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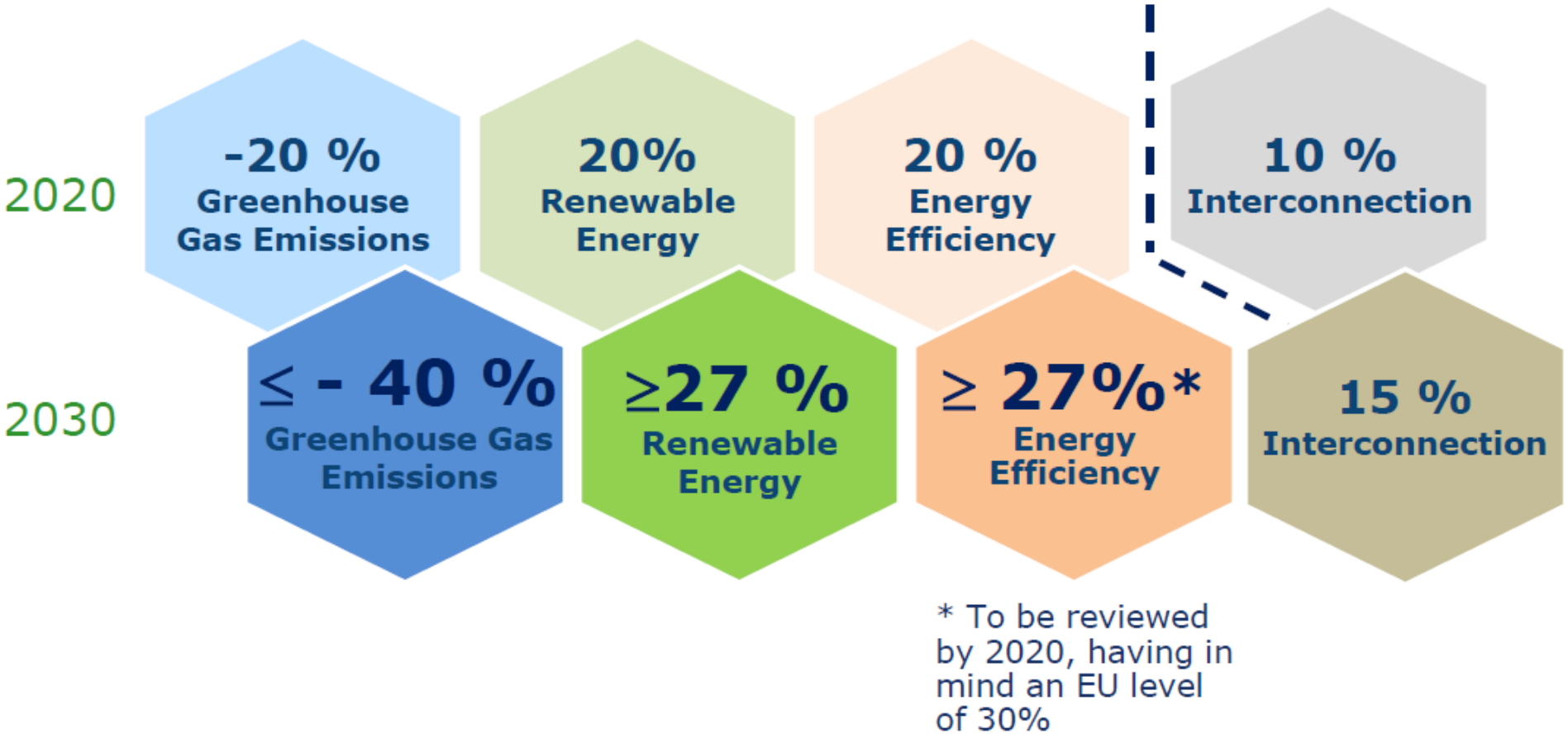
The 2030 EU Framework for Climate and Energy



Roadmap 2050: Energy Efficiency will be key

- Energy efficiency is the single most important contribution, especially until 2020
  - Current policies only result in 10% energy efficiency improvement
  - roadmap confirms key role of efficiency up to 2020 and beyond
  - efforts towards 20% efficiency target would deliver 25% GHG reduction
  - ETS is one instrument to deliver additional efficiency

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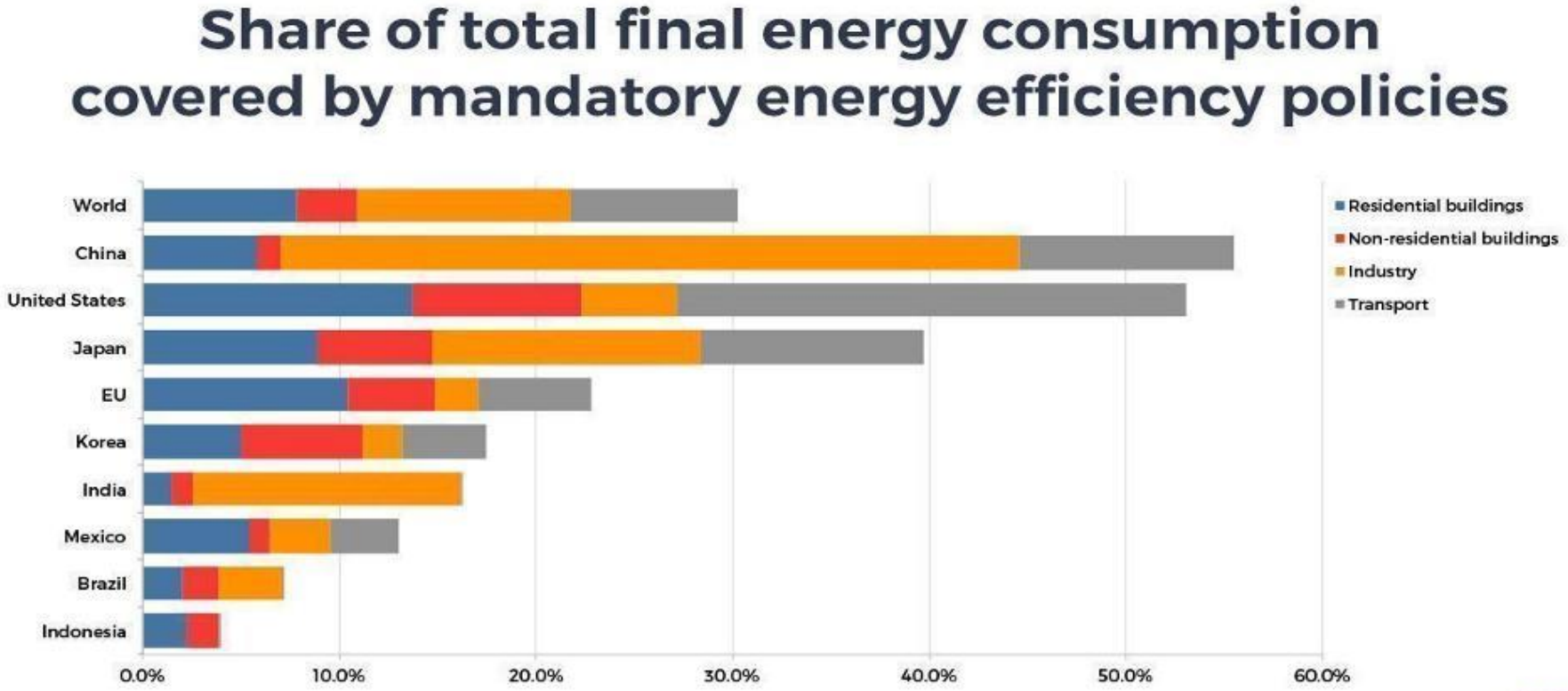
Roadmap 2050: Energy Efficiency will be key



iea.org/eemr16

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Roadmap 2050:
Investing in the EU economy

- Additional domestic investment: € 270 billion annually during 2010-2050, equivalent to 1.5% of GDP, of which
  - built environment (buildings and appliances): € 75 bn
  - transport (vehicles and infrastructure): € 150 bn
  - power (electricity generation, grid): € 30 bn

Note:

- Investment in the EU economy and EU jobs, not cost
- delaying action increases overall investment requirements
- R&D and early demonstration/deployment crucial

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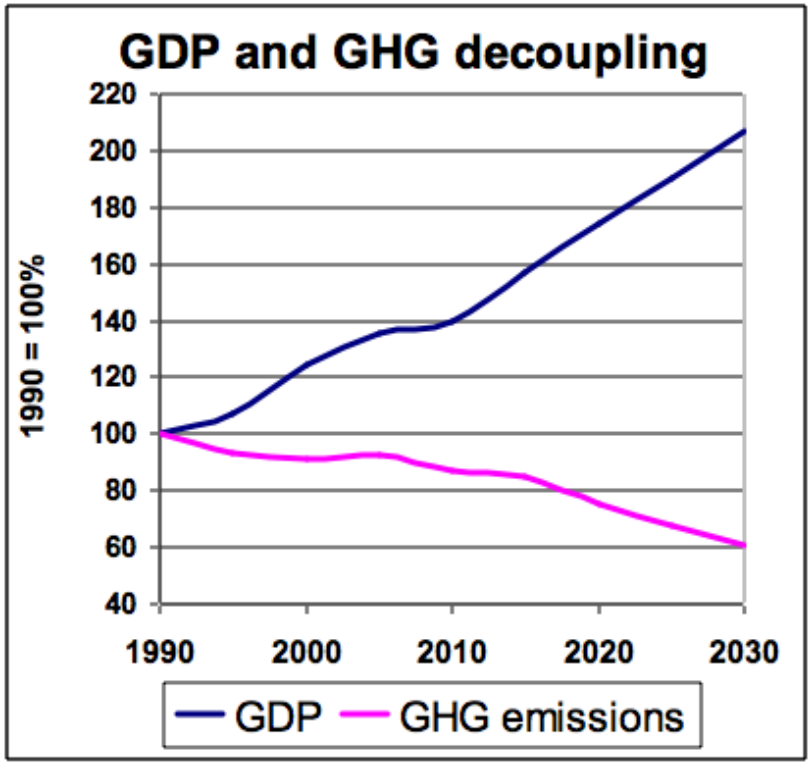
Roadmap 2050:
Benefits for the EU economic growth

Significant increase in domestic investment

- Shift from fuel costs to investment expenditure → money stays in the EU

- Innovation in key growth sectors crucial for future competitiveness
- GDP growth decoupled from GHG emissions also after 2020
- GDP more secure from energy price shocks



Roadmap 2050: Benefits for EU energy security and air quality

- Fuel savings: € 175 to 320 billion on average annually during 2010-2050 **(compared to € 270 billion investments)**
- Primary energy consumption about 30% below 2005 without negatively affecting energy services
- Making EU economy more energy secure:
  - Halves imports of oil and gas compared to today
  - Saving € 400 billion of EU oil and gas import bill in 2050, equivalent to > 3% of today's GDP
  - Safeguard against macro-economic impacts of future energy price hikes
- Air quality and health benefits: € 27 billion in 2030 and € 88 billion in 2050

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EU ETS revision

- ETS reform necessary to increase its effectiveness and robustness from 2021
- Revision of ETS published in July 2015
  - the first step in delivering on the EU's target to reduce greenhouse gas emissions by at least 40% domestically by 2030 in line with the 2030 climate and energy policy framework and as part of its contribution to the Paris Agreement
- Change of the **annual linear reduction factor** from 2021 from 1.74% to **2.2%**
  - necessary to achieve ETS contribution to -40% reduction in 2030
- Free allocation kept as a safeguard against carbon leakage, no imported international credits, MSR

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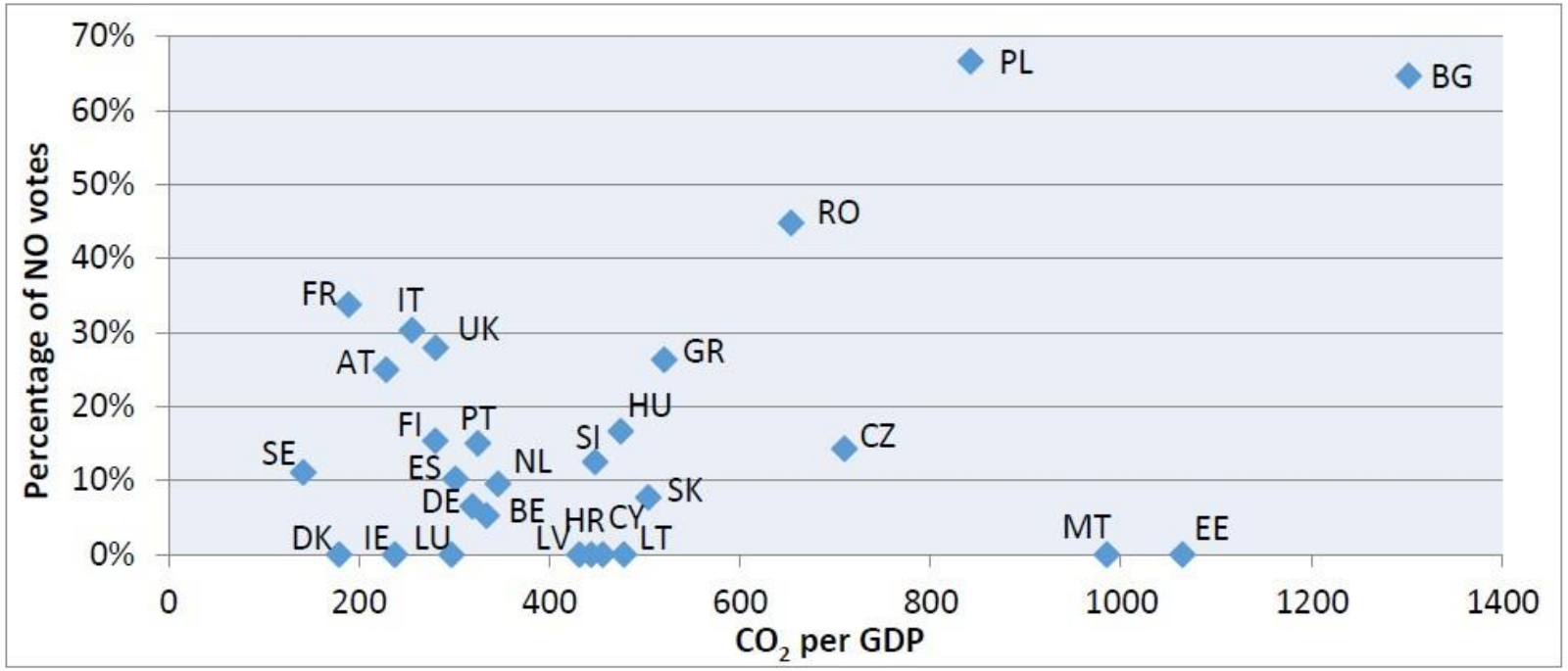
EU ETS revision – challenges

Figure 8. Relationship between countries' anti-Market Stability Reserve votes and emissions intensity of GDP



Notes: AT / Austria; BE / Belgium; BG / Bulgaria; CY / Cyprus; CZ / Czech Republic; DE / Germany; DK / Denmark; EE / Estonia; ES / Spain; FI / Finland; FR / France; GR / Greece; HR / Croatia; HU / Hungary; IE / Ireland; IT / Italy; LT / Lithuania; LU / Luxembourg; LV / Latvia; MT / Malta; NL / Netherlands; PL / Poland; PT / Portugal; RO / Romania; SE / Sweden; SI / Slovenia; SK / Slovakia; UK / United Kingdom

Source: Averchenkova et. Al; 2016; Climate policy in China, the European Union and the United States: main drivers and prospects for the future , In-depth country analyses.

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More robust carbon leakage rules

- Revising the system of free allocation to focus on sectors at highest risk of relocating their production outside the EU – around 50 sectors in total
- A set aside for new and growing installations
- More flexible rules to better align the amount of free allowances with production figures
- Update of benchmarks to reflect technological advances since 2008
- Around 6.3 billion allowances allocated for free in 2021-2030

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Funding energy sector modernisation and low-carbon innovation

Two new funds:

- Innovation Fund – extending existing support for the demonstration of innovative technologies to breakthrough innovation in industry
- Modernisation Fund – facilitating investments in modernising the power sector and wider energy systems and boosting energy efficiency in 10 lower-income Member States

Free allowances will continue to be available to modernise the energy sector in lower-income Member States.

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Other measures for 2021-2030

- Sectors outside the ETS: households, transport, agriculture (ESR)
- Land use, land use change and forestry (LULUCFR)
- Strategy for the decarbonisation of transport
- Energy efficiency (revision of regulatory framework for EE)
- Renewables (including biomass, biofuels)
- Integrated climate and energy governance
- Electricity market design

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Effort Sharing Regulation

- Follow up on Effort Sharing Decision for non-ETS sectors (2013-2020)
- a legal framework for GHG emissions from the non-ETS sectors for the period from 2021 to 2030
- setting out annual national GHG emission limits for transport, buildings, agriculture, small industry and waste management
- Part of the EU's efforts to reduce its GHG emissions by at least 40% below 1990 levels by 2030
- 30% reduction in GHG emissions in covers sectors by 2030 compared to 2005

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ESR: key proposals

- Unchanged scope: CO2, CH4, N2O, HFCs, PFCs, NF3 and SF6.
- National targets range from 0% for Bulgaria to a 40% reduction for Luxembourg and Sweden
- GDP per capita used as main criterion for effort sharing among Member States
- Annual Emissions Allocations to be calculated
- The average annual emissions in the 2016-2018 period (data available in 2020) as a starting point
- An annual linear reduction from the starting point to the emission targets for 2030

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EU climate policy in the context of global agreement - a few facts

- EU was preparing to global climate agreement in advance of the Paris COP
- Continuation embedded in 2009 Climate and Energy Package
- Green Paper on 2030 Climate and Energy Framework published in March 2013, followed by Communication in January 2014
- In international climate negotiations, the EU was steadfast in building broad coalition in favour of increased ambition
- EU was the first major economy to submit its INDC in advance of the Paris COP, in March 2015
- the at least -40% target until 2030 is already under implementation

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